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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,782	08/16/2002	Gerald P. Piechowski	ITW7510.016	4082

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT PAPER NUMBER

1725

DATE MAILED: 04/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/064,782

Applicant(s)

PIECHOWSKI ET AL.

Examiner

Lynne Edmondson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 13-15, 17 is/are rejected.
- 7) ☒ Claim(s) 8, 12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. It is noted that applicant has elected group I, claims 1-6 drawn to a gas filter. However, all previously withdrawn claims have been rejoined, as groups II and III teach a welding apparatus using the filter and a method of using the welding apparatus with the filter, these two groups would have been rejoined. Claims 1-6 are generic as they do encompass welding in any form. The filter is a conventional filter configuration as used in a multitude of devices. All claims will be examined.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bernard et al. (USPN 3883331).

Bernard teaches a gas filter for preventing a shielding gas from introducing particles exceeding a predetermined size into undesired areas (col 1 line 58 – col 2 line 35 and col 5 lines 22-57). This filter may be used for anything including but not limited to air compressors, engines, households and arc welding devices (col 5 lines 10-33) which conventionally use a shielding gas or plasma. The filter comprises a housing (14) with metal screens (36) retained in a passageway between the inlet and outlet (col

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4 lines 33-42), the housing having an inlet (20) capable of being attached to a gas cylinder and an opposite outlet (18) adapted to be connected to a number of devices including but not limited to a valve (figure 1 and col 6 lines 25-68). See also Bernard claims 1, 4 and 10.

4. Claims 1, 7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Major et al. (USPN 5388413).

Major teaches a gas filter which is part of a gas supply in a number of devices including but not limited to welders, refrigeration systems and engine compressors (col 1 lines 5-24 and lines 53-68) for preventing a gas from introducing particles exceeding a predetermined size into a solenoid valve (abstract). Nitrogen is supplied from a source such as a cylinder (tank, col 1 lines 22-24) through an inlet connected to a gas hose (conduit 14). The filter comprises a housing (10) with filter retained in a passageway of the housing between the inlet and outlet (42) with a solenoid controlled by electrical signals between them (col 2 line 60 – col 3 line 42). See also Major claims 1-4.

5. Claims 1, 3-5, 7, 9-11, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Caesar (USPN 5711865).

Caesar teaches a gas filter in a gas-producing device for preventing a gas from introducing particles (water or moisture) exceeding a predetermined size into a solenoid valve (abstract). This filter may be used as part of a gas supply system for a variety of devices and methods including but not limited to welding, heat engines and cutting

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devices (col 5 lines 5-9). The filter comprises a housing (11) with a stainless steel screen (33) for removing particles down to 0.3 microns retained in a passageway of the housing (col 6 lines 25-36) between the inlet and outlet, the housing having an inlet (42) capable of being attached to a gas supply hose (conduit) via solenoid valve (43, col 8 lines 47-55) and an outlet (126, 136) capable of being attached to a solenoid valve (143, col 9 lines 1-15 and lines 25-38) (figure 1 and col 6 lines 25-68). The passage may comprise an outwardly extending annular recess (conical shape, col 3 lines 45-65). Valves are opened and closed by electrical signals. Air is included in the gas mixture (col 4 lines 1-26, col 7 lines 1-37 and claim 10). See also Caesar claims 11 and 19.

6. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Offer et al. (USPN 5981897)

Offer teaches a gas filter capable of preventing a shielding gas from introducing particles exceeding a predetermined size into undesired areas and thereby reducing contamination (col 2 lines 47-52 and col 10 lines 20-30). The filter comprises a housing (104) with a screening material (114) which may be porous steel (col 6 lines 1-3 and lines 25-31) retained in a passageway between the inlet (98) and outlet (16) inlet and outlet are capable of being attached to a gas cylinder and a variety of fittings (figures 14A-14C and col 11 line 3 – col 12 line 7). The inlet comprises a female threaded fitting (for attachment to 104, figure 14B, col 11 lines 38-42). The outlet comprises a male threaded fitting (for connection to fitting 106, figure 14B and col 11 lines 38-40).

7. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Stol (USPN 4642445).

Stol teaches a gas filter capable of preventing a shielding gas from introducing particles exceeding a predetermined size into undesired areas and thereby reducing contamination (smoke removal, claim 16, col 2 lines 1-4 and col 4 lines 24-32). This filter is used for welding devices, particularly arc welding (col 1 lines 5-13). The filter comprises a housing (333, col 4 lines 18-41) with a steel screening material (351 and 355, col 4 line 55 – col 5 line 18) retained in a passageway between inlets (343, 361 and 365) and outlets (363, 337 and 335) wherein inlets 361 and 343 and outlet 363 are capable of being attached to a gas cylinder and a variety of fittings (col 5 lines 29-63). The steel screen contains micropores which filter particles larger than 100 microns (200 mesh has openings of approximately 75 microns, col 4 lines 27-29). Figures 2 and 3 show the outwardly extending annular recess (skirt). See also Stol claims 1-5 and 8-20.

8. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Patel et al. (USPN 4465238).

Patel teaches a gas filter capable of preventing a shielding gas from introducing particles exceeding a predetermined size into undesired areas and thereby reducing contamination (smoke removal, claim 16, col 2 lines 1-4 and col 4 lines 24-32). This filter can be used for any type of device including but not limited to air nozzles and drying ovens (col 1 lines 5-8). The filter comprises a housing (12, 212) with a filter (18,

218) comprising a steel screening material (30, 230, col 5 lines 17-23 and col 10 lines 50-57) retained in a passageway between an inlet (16, 216, col 1 lines 25-38, col 4 lines 38-58 and col 10 lines 13-28) and an outlet (42, 242 figures 1 and 7 and col 2 lines 16-27, col 4 lines 59-68 and col 11 line 4) wherein the inlet and out are capable of being attached to a gas cylinder and a variety of fittings (figures 1-3 and 7). The steel screen contains micropores which filter particles larger than 100 microns as particles of 20-80 are removed (col 5 lines 34-40). Figures 1, 7 and 10 show the housing outwardly extending at the inlet side with the passageway tapering inwardly from the inlet toward the outlet to create a sharp circular edge. However, the filter and housing may take any shape (col 5 lines 1-16). See also Patel claim 1.

### ***Response to Arguments***

9. Applicant's election with traverse of group I in Paper No. 2 is acknowledged. All claims have been rejoined.

### ***Allowable Subject Matter***

10. Claims 8, 12 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art teaches the invention essentially as claimed but does not



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teach threaded inlets and outlets. Neither does the prior art teach a welding apparatus or method employing a gas-filtering device with an inwardly tapered passageway such that a sharp circular edge is produced. See Major (USPN 5388413) and Caesar (USPN 5711865). Where threaded inlets and outlets (Offer, USPN 5981897) or the particular shape of the annular recess edge is taught in a welding device (Patel, USPN 4465238), there is no solenoid valve. See Patel (USPN 4465238) and Offer et al. (USPN 5981897)

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adiletta (US 2001/0043891 A1, diesel filter with claimed configuration for removing contaminants for gas stream, steel mesh), Zito (USPN 5617727, gas filter between inlet and outlet, gas hose, solenoid valve), Stol (USPN 4528436 welding device with filter, steel screen), Schneider et al. (USPN 4300034, welding device with filter and steel screen, solenoid valve, gas hose), Polak (USPN 3917458, screen with claimed structure for removing solids from liquids), Matsuo et al. (USPN welding device with gas supply system and steel filter, gas hose, solenoid valve), Pittman (USPN 5064454, cleaning device for removing particles from gas streams, filter, inlet, outlet, hose, solenoid valve), Baxi (USPN 5198240, injection molder with gas filter between inlet and outlet, gas hose, solenoid valve), Dibacco et al. (USPN 5844201, welder, gas filter, inlet, outlet, gas hose, solenoid valve) and Flynn et al. (USPN 5846271, compressed gas filter, steel with claimed structure).

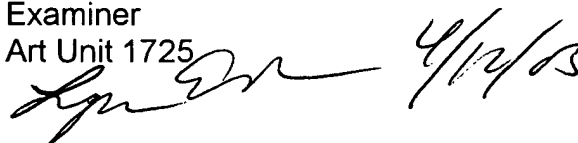
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (703) 306-5699. The examiner can normally be reached on M-F from 7-4 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-7115 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

LRE  
April 12, 2003

Lynne Edmondson  
Examiner  
Art Unit 1725

Handwritten signature of Lynne Edmondson and the date 4/12/03.